



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/565,835

01/25/2006

Takehiro Hokimoto

Q92879

7318

23373

7590

07/05/2007

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

HU, RUI MENG

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

07/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,835	Applicant(s) HOKIMOTO ET AL.	
	Examiner RuiMeng Hu	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/25/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 1/25/2006 has been considered by the examiner.

Drawings

3. **Figures 17-19** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 1, 4-5, 8, 11-12, 13, 16-17, 20, and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nakahara Masamori (JP 11-243590)** in view of **Nishidai Tetsuo (JP 10336760)** and **Fukuda (US Patent 5765114)**.

Consider **claim 1**, Nakahara clearly discloses a radio transmitter/receiver which requires less reception standby power, comprising: a radio reception unit; a radio transmission unit (paragraphs 17-19, drawing 11) for transmitting an activation selection signal (drawing 11, group ID) to switch the radio reception unit of another radio transmitter/receiver from intermittent reception mode to continuous reception mode

before transmitting a preamble signal (drawing 11, SYN) thereto; and a standby reception unit (paragraphs 4-8, drawings 5, 21) for intermittently performing reception at intervals of a prescribed bit width (drawing 8, paragraph 66) to receive an activation selection signal from the radio transmission unit of another radio transmitter/receiver, and generating a signal to activate the radio reception unit on receipt of the activation selection signal (paragraph 45, drawing 1, switching from intermittent reception actuation to continuous reception actuation based on verification of group ID).

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Nakahara fails to disclose having two separate receiving units, one receiving unit for receiving data and the other receiving unit (standby receiving unit) for receiving activation selection signal. However, the teaching of a transceiver comprises two separate receiving units for independently receiving intermittent control signal and regular data is well known in the art, said teaching is disclosed by Fukuda (US Patent 5765114) (figure 2, intermittent data receiver (word receiver 22) and main receiver 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by

Fukuda into the art of Nakahara as to include two separate receiving units for receiving intermittent data and regular data independently as for better power management.

Consider **claim 4 as applied to one of claims 1 to 3**, Nakahara as modified by Tetsuo and Fukuda discloses further comprising a power controller (switching from intermittent reception actuation to continuous reception actuation), wherein: the radio transmission unit adds an ID signal (drawing 11, group ID) that specifies the receiver to the activation selection signal; the standby reception unit (paragraph 45, drawing 1) determines whether or not the received activation selection signal is addressed to the radio transmitter/receiver based on an ID signal added to the activation selection signal; and the power controller feeds power to the radio transmission unit and the radio reception unit only when the standby reception unit has determined that the activation selection signal is addressed to the radio transmitter/receiver (paragraph 45).

Consider **claim 5 as applied to claim 4**, Nakahara as modified by Tetsuo and Fukuda discloses wherein the ID signal includes a group ID signal and/or an individual ID signal (paragraph 20).

Consider **claim 8**, Nakahara disclose a radio receiver (paragraphs 4-8, 45, drawings 1, 5, 21) which requires less reception standby power, comprising: a radio reception unit; and a standby reception unit for intermittently performing reception at intervals of a prescribed bit width to receive an activation selection signal (group ID) transmitted prior to a preamble signal (drawing 11, SYN), and generating a signal to activate the radio reception unit on receipt of the activation selection signal.

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Nakahara fails to disclose having two separate receiving units, one receiving unit for receiving data and the other receiving unit (standby receiving unit) for receiving activation selection signal. However, the teaching of a transceiver comprises two separate receiving units for independently receiving intermittent control signal and regular data is well known in the art, said teaching is disclosed by Fukuda (US Patent 5765114) (figure 2, intermittent data receiver (word receiver 22) and main receiver 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Fukuda into the art of Nakahara as to include two separate receiving units for receiving intermittent data and regular data independently as for better power management.

Consider **claim 11 as applied to one of claims 8 to 10**, Nakahara as modified by Tetsuo discloses further comprising a power controller (switching from intermittent reception actuation to continuous reception actuation based on verification of group ID), wherein: the standby reception unit (paragraph 45, drawing 1) determines whether or not the received activation selection signal is addressed to the radio receiver based on

an ID signal added to the activation selection signal; and the power controller feeds power to the radio transmission unit and the radio reception unit only when the standby reception unit has determined that the activation selection signal is addressed to the radio receiver (paragraph 45).

Consider **claim 12 as applied to claim 11**, Nakahara as modified by Tetsuo discloses wherein the ID signal includes a group ID signal and/or an individual ID signal (paragraph 20).

Consider **claim 13**, Nakahara discloses an intermittent transmission/reception control method applied to a radio transmitter/receiver comprising a radio reception unit, a radio transmission unit (paragraphs 17-19, drawing 11) and a standby reception unit (drawing 5, paragraph 45) for reducing reception standby power, the method comprising the steps of: the radio transmission unit transmitting an activation selection signal (drawing 11, group ID) to switch the radio reception unit of another radio transmitter/receiver from intermittent reception mode to continuous reception mode before transmitting a preamble signal (drawing 11, SYN) thereto; the standby reception unit intermittently performing reception at intervals of a prescribed bit width to receive an activation selection signal from the radio transmission unit of another radio transmitter/receiver; and the standby reception unit generating a signal to activate the radio reception unit on receipt of the activation selection signal (drawing 8, paragraph 66) (drawing 1, paragraph 45).

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Nakahara fails to disclose having two separate receiving units, one receiving unit for receiving data and the other receiving unit (standby receiving unit) for receiving activation selection signal. However, the teaching of a transceiver comprises two separate receiving units for independently receiving intermittent control signal and regular data is well known in the art, said teaching is disclosed by Fukuda (US Patent 5765114) (figure 2, intermittent data receiver (word receiver 22) and main receiver 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Fukuda into the art of Nakahara as to include two separate receiving units for receiving intermittent data and regular data independently as for better power management.

Consider **claim 16 as applied to one of claims 13 to 15**, Nakahara as modified by Tetsuo and Fukuda discloses further comprising the steps of: the radio transmission unit adding an ID signal (group ID) that specifies the receiver to the activation selection signal; the standby reception unit determining whether or not the received activation selection signal is addressed to the radio transmitter/receiver based on an ID signal added to the activation selection signal (paragraph 45); and a power controller feeding power to the radio transmission unit and the radio reception unit only when the standby

reception unit has determined that the activation selection signal is addressed to the radio transmitter/receiver (paragraph 45, switching from intermittent reception actuation to continuous reception actuation based on verification of group ID).

Consider **claim 17 as applied to claim 16**, Nakahara as modified by Tetsuo discloses wherein the ID signal includes a group ID signal and/or an individual ID signal (paragraph 20).

Consider **claim 20**, Nakahara discloses an intermittent reception control method for reducing reception standby power (drawing 1, paragraph 45), comprising the steps of: the standby reception unit (drawing 5, paragraph 66, drawing 8) of a radio receiver intermittently performing reception at intervals of a prescribed bit width to receive an activation selection signal (paragraph 66, drawing 8, drawing 11, group ID) transmitted prior to a preamble signal (drawing 11, SYN); and the standby reception unit generating a signal to activate the radio reception unit of the radio receiver on receipt of the activation selection signal (paragraph 45, switching from intermittent reception actuation to continuous reception actuation based on verification of group ID).

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Nakahara fails to disclose having two separate receiving units, one receiving unit for receiving data and the other receiving unit (standby receiving unit) for receiving activation selection signal. However, the teaching of a transceiver comprises two separate receiving units for independently receiving intermittent control signal and regular data is well known in the art, said teaching is disclosed by Fukuda (US Patent 5765114) (figure 2, intermittent data receiver (word receiver 22) and main receiver 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Fukuda into the art of Nakahara as to include two separate receiving units for receiving intermittent data and regular data independently as for better power management.

Consider **claim 23 as applied to one of claims 20 to 22**, Nakahara as modified by Tetsuo and Fukuda discloses further comprising the steps of: the standby reception unit determining whether or not the received activation selection signal is addressed to the radio receiver based on an ID signal added to the activation selection signal (drawing 1, paragraph 45); and a power controller feeding power to a radio transmission unit and the radio reception unit only when the standby reception unit has determined that the activation selection signal (group ID) is addressed to the radio receiver (paragraph 45, switching from intermittent reception actuation to continuous reception actuation based on verification of group ID).

Consider **claim 24 as applied to claim 20**, Nakahara as modified by Tetsuo discloses wherein the ID signal includes a group ID signal and/or an individual ID signal (paragraph 20).

8. **Claims 6-7 and 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nakahara Masamori (JP 11-243590)** in view of **Nishidai Tetsuo (JP 10336760)**.

Consider **claim 6**, Nakahara discloses a radio transmitter, including a radio transmission unit for transmitting an activation selection signal (drawing 11, group ID) to switch the radio reception unit of a radio receiver from intermittent reception mode to continuous reception mode before transmitting a preamble signal (drawing 11, SYN) thereto (paragraphs 17-19, 45, drawings 1, 11).

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Consider **claim 7 as applied to claim 6**, Nakahara as modified by Tetsuo discloses wherein the radio transmission unit adds an ID signal that specifies the receiver to the activation selection signal (group ID).

Consider **claim 18**, Nakahara discloses an intermittent transmission control method (paragraphs 17-19, drawing 11), comprising the step of the radio transmission unit of a radio transmitter transmitting an activation selection signal (drawing 11, group

ID, drawing 8, paragraph 66) to switch the radio reception unit of a radio receiver from intermittent reception mode to continuous reception mode before transmitting a preamble signal (drawing 11, SYN) thereto (paragraph 45, drawing 1).

However, Nakahara fails to disclose transmitting an activation selection signal using ASK modulation or OOK modulation.

In the same field of endeavor, Tetsuo clearly discloses transmitting an activation selection signal using ASK modulation (paragraph 24).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Tetsuo into the art of Nakahara as to include ASK modulation as an alternative.

Consider **claim 19 as applied to claim 18**, Nakahara as modified by Tetsuo discloses further comprising the step of the radio transmission unit adding an ID signal that specifies the receiver to the activation selection signal (paragraph 20).

9. **Claims 2-3, 9-10, 14-15 and 21-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nakahara Masamori (JP 11-243590) in view of Nishidai Tetsuo (JP 10336760), Fukuda (US Patent 5765114) and Dacus et al. (US Patent 6223061).**

Consider **claim 2 as applied to claim 1, claim 9 as applied to claim 8, claim 14 as applied to claim 13, claim 21 as applied to claim 20**, Nakahara as modified by Tetsuo and Fukuda discloses wherein: the standby reception unit includes a oscillator for completing reception in a time period of a prescribed bit width from when the power is turned on (Fukuda (figure 2, frequency synthesizer 4)).

However, Nakahara as modified by Tetsuo and Fukuda fails to disclose the use of a signal generated by the SAW oscillator reduces the reception startup time of the radio reception unit.

In the same field of endeavor, Dacus et al. disclose (Column 2 lines 43-55) a SAW oscillator for allowing compact, low power, and low cost.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection techniques taught by Dacus et al. into the art of Nakahara as modified by Tetsuo and Fukuda as to a SAW oscillator as for allowing compact, low power, and low cost.

Consider **claim 3 as applied to claim 2, claim 10 as applied to claim 9, claim 15 as applied to claim 14, claim 22 as applied to claim 21**, Nakahara as modified by Tetsuo, Fukuda and Dacus et al. discloses wherein the SAW oscillator is provided with a frequency selector for selecting the oscillation frequency thereof (as necessary for tuning to the correct receiving frequency).

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

to: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu
R.H./rh
June 21, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 6/21/07